REMARKS

The specification has been amended. Claims 1-12 are pending, with claims 1-2 and 7-8 being independent.

Attached hereto is an Appendix entitled "Version with Markings to Show Changes Made" which is a marked-up version of the portions of the application which have been amended by the present second preliminary amendment, with brackets indicating deleted matter and underlining indicating added matter.

A claim for priority was filed on June 25, 2001, and it is respectfully requested that the claim for priority be acknowledged.

An Information Disclosure Statement was filed on June 25, 2001, and it is respectfully requested that the Information Disclosure Statement be considered.

Preliminary remarks were filed on June 25, 2001, and it is respectfully requested that the preliminary remarks be considered.

A preliminary amendment was filed on September 25, 2001, and it is respectfully requested the Examiner indicate that the preliminary amendment of September 25, 2001, and the present second preliminary amendment have been entered.

Please charge any shortage in fees due in connection with the filing of this paper, or credit any overpayment of fees,

to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (500.36707CX1).

Respectfully submitted,

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Attachment

APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

Changes made to the application by the present second preliminary amendment are indicated below, with brackets indicating deleted matter and underlining indicating added matter.

IN THE SPECIFICATION

The paragraph on page 10, line 23, through page 11, line 17, has been deleted and replaced with the following replacement paragraph:

--(1) Since the necessary path memory length for the LVA detector is required to be larger than the CRC block length, making the CRC block length long (more than about 100 bits) makes it impractical to construct the LVA detector. In the conventional system, the LVA is utilized in a communications field such as mobile radio communication, and thus it is not necessary to extremely increase the coding rate. Therefore, the CRC block length is as short as at most 10 bits (the path memory length is about 20 bits), and the coding rate may be about 8/10. In practice, however, since the conventional system employs a combination of a convolution code of rate 1/2 as a code for constructing the trellis diagram in addition to the CRC code, the coding rate of the whole system is

substantially as fairly low as 4/10. For the magnetic recording, the coding rate of the whole system is required to be [more than] 8/9 or more for high-density recording. Thus, the CRC block length for this purpose becomes very long (more than about 100 bits), and thus the LVA detector that needs a path memory length longer than that cannot be practically constructed since the processing delay becomes remarkably large.--

The paragraph on page 12, lines 7-11, has been deleted and replaced with the following replacement paragraph:

--In view of the above problems, it is an object of the invention to provide a digital magnetic recording/reproducing apparatus capable of maintaining the coding rate as high as [more than] 8/9 or more, and performing higher-density recording than in the prior art.--